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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,502	10/05/2005	Herve Cleris	HER0072	8137

832 7590 03/08/2007  
BAKER & DANIELS LLP  
111 E. WAYNE STREET  
SUITE 800  
FORT WAYNE, IN 46802

EXAMINER
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VAUGHN, MEGANN E

ART UNIT	PAPER NUMBER
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2859

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,502	<b>Applicant(s)</b> CLERIS ET AL.	
	<b>Examiner</b> Megann E. Vaughn	<b>Art Unit</b> 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/13/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 6 is objected to because it recites the limitation "the cold finger" in lines 3. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biermans et al (US 4572676) in view of Jones et al (US4519717).

Regarding claims 1 and 2, Biermans et al discloses in figure 1, a method characterized by the following steps: a laser emitter (10) and an associated longitudinal optical receiver (13) are mounted on either side of a substantially horizontal tubular measuring cell (2) located in a cryostatic chamber (3) equipped with a temperature sensor (19) connected to cooling and temperature control members (20), so that the optical beam (11) emitted by the laser emitter (10) is aligned with the horizontal axis of the measuring cell and with the longitudinal optical receiver (13), the temperature sensor (19), the cooling and temperature control members and the longitudinal optical receiver (13) are connected to programmable calculating and display means, there is mounted, upstream of the longitudinal optical receiver (13), a polarizer (12) which is so

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adjusted that the optical beam emitted directly by the laser emitter (10) cannot be transmitted (column 4, lines 33-34), there is mounted close to the measuring cell (2), in the upstream portion thereof, a lateral optical receiver (17) connected to the optical beam (11) emitted by the laser emitter (10) and to the programmable calculating and display means (20), the sample to be analyzed is introduced into the measuring cell (2), the laser emitter (10), the longitudinal optical receiver (13) and the lateral optical receiver (17) are switched on so as to pass an optical beam through the sample to be analyzed, the temperature of the cryostatic chamber (3) is gradually lowered (column 4, lines 38-40) while the curve showing the variations in the light intensity (L13) received by the longitudinal optical receiver (13) as a function of the temperature (column 4, lines 38-48), or the detection curve, and the curve showing the variations in the light intensity (L17) received by the lateral optical receiver (17) as a function of the temperature (column 4, lines 38-48), or the opacity curve, are recorded, and there is determined, using the latter curve, the end of crystallization temperature of the sample to be analyzed (column 5, lines 4-5), or the point of opacity, from which the temperature of the chamber (2) is gradually raised again while continuing to record the detection curve and the opacity curve, and the vanishing point of the crystals is determined from the detection curve (column 5, lines 5-9).

The recitation "method of determining the vanishing point of petroleum product crystals, especially crystals of kerosenes intended for aviation in a temperature range of approximately from  $-5^{\circ}\text{C}$  to  $-120^{\circ}\text{C}$ " has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable

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weight where it merely recites the purpose of a process of the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67 (1976) and *Kropa v. Robie*, 187 F.2d 150, 152 (1951).

Regarding claim 2, Biermans et al discloses in figure 1 a device for implementing the method according to claim 1, characterized in that it comprises a cryostatic chamber (3) equipped with a temperature sensor (19) connected to cooling and temperature control members, a substantially U-shaped measuring tube which is mounted inside the cryostatic chamber (3) and the central, substantially horizontal branch of which constitutes the measuring cell (2) while the lateral branches (4, 5) permit the introduction of the sample to be analyzed into the cell and its removal, a laser emitter (10) and an associated longitudinal optical receiver (13), aligned on either side of the measuring cell (2), along the longitudinal axis thereof, a polarizer (12) mounted upstream of the longitudinal optical receiver (13), programmable calculating and display means (20) connected to the temperature sensor (19), to the cooling and temperature control members (8) and to the longitudinal optical receiver (13), and a lateral optical receiver (17) mounted close to the measuring cell (2), in the upstream portion thereof, and connected to the programmable calculating and display means (20).

Biermans et al does not disclose a diaphragm that is mounted directly downstream of the laser emitter so that the optical beam emitted thereby is sufficiently fine to rule out any reflection on the walls of the measuring cell.

Jones et al discloses a cloud point analyzer in figure 3 comprising a diaphragm (44) that is mounted directly downstream of the laser emitter so that the optical beam emitted thereby is sufficiently fine to rule out any reflection on the walls of the measuring cell (column 3, lines 34-37). Therefore it would have been obvious to a person having ordinary skill in the art at the time that the invention was made to place a diaphragm directly downstream of the laser emitter disclosed by Biermans et al, as taught by Jones et al, in order to limit the laser to a single plane for more accurate results.

Regarding claim 3, Biermans et al discloses in figure 1 that the light intensity is transmitted to the optical receiver(s) (13, 17) by way of light guides (see dotted lines in figure).

Regarding claim 4, Biermans et al discloses in figure 1 that the light guides cooperate with lenses (14, 15) capable of concentrating the optical beam (11) (column 4, lines 3-15).

Regarding claim 5, Biermans et al discloses the device according to claim 2 as stated above. Biermans et al does not disclose that the measuring tube is constituted by a metal element, especially made of aluminum, equipped with ports permitting the passage of the optical beam to be detected.

Jones et al discloses in figure 3 that the measuring tube is constituted by a metal element (24), especially made of aluminum (column 3, lines 19-20), equipped with ports permitting the passage of the optical beam to be detected (column 3, lines 37-39).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to make the measuring tube disclosed by Biermans et al out of aluminum as taught by Jones et al, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 6, Biermans et al discloses that the cooling and temperature control members (8) are constituted by a cooling unit (3), a cold finger of which is equipped at its free end with dry contact heat transmission members (6, 7) cooperating with the cryostatic chamber (3) in order to allow it to be cooled to the desired temperature (column 3, lines 61-68).

Regarding claim 7, Biermans et al discloses that it is constituted by a compact portable device (1).

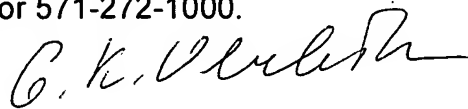
### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Megann E. Vaughn whose telephone number is 571-272-8927. The examiner can normally be reached on 8 am- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MEV  
Patent Examiner Art Unit 2859  
3/2/2007

**GAIL VERBITSKY**  
**PRIMARY EXAMINER**